

Notice of Allowability

Application No.

10/790,755

Examiner

Teresa M. Bonk

Applicant(s)

YAMANO ET AL.

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/24/2006.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other


DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

NOTICE OF ALLOWANCE

1. Regarding claim 1, it is in the opinion of the examiner that the art of record neither anticipates nor renders obvious “wherein a convex portion extending toward the die is formed at a tope area of the punch corresponding to a site to be formed at the initial stage of forming” in combination with the rest of the claimed limitations set forth in the independent claim.

Based on applicant’s arguments and the examiner’s review of the Office Action dated December 27, 2005, the claimed subject matter above is deemed to be allowable. Further clarification can be reviewed in the applicant’s arguments on pages 6-7.

However the above prior art fails to disclose a reasonable combination of “wherein a convex portion extending toward the die is formed at a tope area of the punch corresponding to a site to be formed at the initial stage of forming.”

2. Regarding claims 3 and 6, it is in the opinion of the examiner that the art of record neither anticipates nor renders obvious “wherein the clearances CL3 and CL4 are set so as to satisfy the following expressions (3) and (4), respectively:

$$0.8 \times t \leq CL3 \leq 1.2 \times t \quad (3)$$

$$CL4 \geq CL3 + t \quad (4)$$

Where t denotes the thickness of the metal sheet to be formed” in combination with the rest of the claimed limitations set forth in the independent claim.

Further searching by the examiner yielded additional prior art as follows: Shimizu (US Patent 5,544,517) and Miyauchi et al. (US Publication 2002/0083754), which were discussed in the previous Office Action dated, December 27, 2005.

However the above prior art fails to disclose a reasonable combination of “wherein the clearances CL3 and CL4 are set so as to satisfy the following expressions (3) and (4), respectively:

$$0.8 \times t \leq CL3 \leq 1.2 \times t \quad (3)$$

$$CL4 \geq CL3 + t \quad (4)$$

Where t denotes the thickness of the metal sheet to be formed.”

3. Regarding claim 4, it is in the opinion of the examiner that the art of record neither anticipates nor renders obvious “wherein the clearances CL1 and CL2 are set so as to satisfy the following expressions (1) and (2), respectively:

$$0.8 \times t \leq CL1 \leq 1.2 \times t \quad (1)$$

$$CL2 \geq CL1 + t \quad (2)$$

Where t denotes the thickness of the metal sheet to be formed” in combination with the rest of the claimed limitations set forth in the independent claim.

Based on applicant’s arguments and the examiner’s review of the Office Action dated December 27, 2005, the claimed subject matter above is deemed to be allowable. Further clarification can be reviewed in the applicant’s arguments on pages 7-10.

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However the above prior art fails to disclose a reasonable combination of “wherein the clearances CL1 and CL2 are set so as to satisfy the following expressions (1) and (2), respectively:

$$0.8 \times t \leq CL1 \leq 1.2 \times t \quad (1)$$

$$CL2 \geq CL1 + t \quad (2)$$

Where t denotes the thickness of the metal sheet to be formed.”

4. Regarding claim 5, it is in the opinion of the examiner that the art of record neither anticipates nor renders obvious “wherein in the forming jig, a clearance CL4 between the forming jig and the die in the vicinity of a die shoulder of the die is set so as to be wider than a clearance CL3 between the forming jig and the die in a forming area other than the vicinity of the die shoulder of the die” in combination with the rest of the claimed limitations set forth in the independent claim.

Based on applicant’s arguments and the examiner’s review of the Office Action dated December 27, 2005, the claimed subject matter above is deemed to be allowable. Further clarification can be reviewed in the applicant’s arguments on pages 10-11.

However the above prior art fails to disclose a reasonable combination of “wherein in the forming jig, a clearance CL4 between the forming jig and the die in the vicinity of a die shoulder of the die is set so as to be wider than a clearance CL3 between the forming jig and the die in a forming area other than the vicinity of the die shoulder of the die.”

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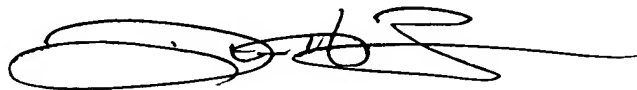
5. Therefore, it is concluded by the examiner that claims 1-8 of the present invention are allowable.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa M. Bonk whose telephone number is (571) 272-1901. The examiner can normally be reached on M-F 7:30AM - 5PM with alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



**DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700**

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Teresa M. Bonk
Examiner
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